

**VALUE ENGINEERING CHANGE PROPOSAL  
MISSOURI DEPARTMENT OF TRANSPORTATION**

Contract ID <u>071130-201</u>		Date <u>09-23-2008</u>
County <u>Macon/Randolph</u>	Route <u>63</u>	Job No. <u>J2P0770</u>
Contractor <u>Chester Bross Construction</u>		Original Bid Cost <u>\$2,148,371.85</u>
Designed By <u>MoDOT</u>		By <u>Jeff Gander / Dennis Brucks</u>
VECP # <u>VECP 08-78</u>		Phone <u>660-385-3036</u>
		VECP <input type="checkbox"/> or VEC/PDU <input type="checkbox"/>

**1. Description of existing requirements and proposed change(s). Advantages/Disadvantages**

This is a MoDOT originated VE proposal, which was accepted by Bross Construction Co. and verbally approved at the central office level prior to the start of construction. The formal submittal was withheld until the final cost of any possible shoulder repair could be determined.

This project was designed to place temporary two-way traffic on the NBLs while resurfacing the SBLs in order to avoid possible damage to the SBL shoulders during construction, and to avoid frequent lane drops on a section of highway that has limited sight distance. The proposed change is to perform the resurfacing of the SBL under traffic with a single lane drop for the entire six-mile length. This change would eliminate the need for the construction of a temporary crossover as well as many traffic control items and temporary striping items. The original design did not include Tubular Markers, but the markers would have been necessary for the two-way traffic option, so they were included in the cost savings calculation. The proposed change required additional Trim-Line Channelizers and Type 1 Temporary Raised Pavement Markers. The unit cost of the traffic control items was increased due to the higher maintenance cost for these devices in a lane-drop situation. Also, a lump sum item was added at a cost of \$7,500 to cover the additional cost of adding one laborer to the crew for traffic control maintenance.

The maximum projected savings for this proposal was \$79,594.24 (see attached calculations). Per agreement with the contractor, any costs associated with repairing the SB shoulders that were damaged by traffic would be deducted from the savings prior to the 50/50 split. Fortunately, no repairs were necessary, so the entire savings were realized and will be split evenly.

**2. Estimate of reduction in construction costs.** \$79,594.24

**3. Prediction of any effects the proposed change(s) will have on other department costs, such as maintenance and operations.**

None anticipated.

**4. Anticipated date for submittal of detailed change(s) of items required by Section 104.6 of the Specifications.**

N/A

(date)

5. Deadline for issuing a change order to obtain maximum cost reduction, noting the effect of contract completion time or delivery schedule.

N/A

(date)

N/A

(effect)

6. Dates of any previous or concurrent submission of the same proposal.

N/A

(date and/or dates)

Additional Comments:

We feel that this proposed option, which utilizes a lane drop for the entire length of the SBL, is safer than placing temporary two-way traffic on the NBL.

**\*\* Portion Below This Line To Be Filled Out by MoDOT \*\***

Comments:

*I recommend approval of this proposal.*

*Jeffrey T. Bowden*  
Submitted By Resident Engineer

*9-23-08*  
Date

Comments:

This VE proposal was submitted to provide a higher degree of safety in the work zone. Any savings realized were considered an added bonus.

☒ Approval Recommended

*Daniel Hesse*

*9/24/08*

☐ Rejection  
Recommended

District Engineer

*D/HB*

Date

Comments:

☒ Approval

☐ Rejection

David D. Gorman

10-6-08

State Construction and Materials Engineer

Date

OK DMG 9/26/2008

Distribution:

Resident Engineer, Project Manager, District Operations Engineer, State Construction and Materials Engineer

\*Value Engineering Administrator - \*MoDOT, P.O. Box 270, Jefferson City, MO 65102

**VE Proposal #1 - Construct SBL Under Traffic****Job No. : J2P0770****Contract Id.: 071130-201****Savings**

Line No.	Description	Units	Quantity	Unit Price	Total	Remarks
0010	Linear Grading Cl. 2	Sta.	2.6	\$2,770.00	\$7,202.00	
0020	Subgrade Compaction	Sta.	3	\$530.00	\$1,590.00	
0040	Type 1 Agg Base 4"	Sq. Yd.	800	\$6.50	\$5,200.00	
0070	BP-1	Ton	77.3	\$70.00	\$5,411.00	
0080	Bit Base	Ton	278.5	\$71.50	\$19,912.75	
0090	Tack	Gallon	40	\$1.70	\$68.00	
0130	Trim Line Channelizer	Each	150	\$12.60	\$1,890.00	
0120	Construction Signs	Sq. Ft.	2064	\$3.15	\$6,501.60	
0140	Type 3 Barricade	Each	43	\$175.00	\$7,525.00	
0200	Temp White Tape	Foot	1230	\$5.25	\$6,457.50	
0210	Temp Yellow Tape	Foot	2680	\$5.25	\$14,070.00	
0220	Temp 6" White Paint	Foot	45038	\$0.13	\$5,854.94	
0230	Temp 6" Yellow Paint	Foot	45038	\$0.13	\$5,854.94	
0270	Tape Removal	Foot	3910	\$0.21	\$821.10	
	Tubular Markers	Each	462	\$45.00	\$20,790.00	
<b>Total</b>					<b>\$109,148.83</b>	

**Costs**

Line No.	Description	Units	Quantity	Unit Price	Total	Remarks
5001	Construction Signs	Sq. FT	1811	\$6.09	\$11,028.99	
5002	Trim Line Channelizer	Each	705	\$14.72	\$10,377.60	
5003	Type 1 TRPM	Each	720	\$0.90	\$648.00	Shoulder
5004	Flagger	Lump Sum	1	\$7,500.00	\$7,500.00	
5005	VE Payment	Each	39797.12	\$1.00	\$39,797.12	
<b>Total</b>					<b>\$69,351.71</b>	

**Grand Total****\$39,797.12**

# VALUE ENGINEERING CHECK SHEET

## **TYPE OF WORK**

(Check one that applies)

- ☐ Bridge/Structure/Footings
- ☐ Drainage Structures (RCP, RCB, CMP's, etc.)
- ☒ TCP/MOT
- ☐ Paving (PCCP, etc.)
- ☐ Grading/MSE Walls
- ☐ Signal/Lighting/ITS
- ☐ Misc. \_\_\_\_\_

## **SUMMARY OF PROPOSAL**

(If needed, condense summary to a couple of lines)

Used lane drop on SBL instead of head to head traffic on NBL.

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## **SCANNING OF DOCUMENT**

If the proposal is large, please mark or make note, which pages need to be scanned into the database. If there are special instructions, make note of them here.

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